CIVIL QUALITY CONSULTANTS & ENGINEERS

(Buildings Geo-Tech & Highway Materials Testing Laboratory)
An ISO 9001: 2008 Certified Company

IAS-ANZ ISO 9001:2000 CERTIFIED

QCE/BBMP/KTR/W.No.15/2017-18 Date : 27.02.2018

GRADATION FOR GSB(Coarse Graded-1)
IS : 2720 (Part - 4)

: **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.

: **Sri. K.T Ramesh,** Contractor, Bangalore.

work : Improvements and Re-Asphalting of Road from 1st, 2nd, 3rd & 5th Cross Road Kempegowda Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.

esting : 27.02.2018

ource : Mix Plant Bangalore. **Oven Dry Wt (gm) :** 5000

1

ize in	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Specified Limits
	-	-	-	100	100
	1574	1574	31.48	68.52	55-75
	2351	3925	78.50	21.50	10-30
;	752	4677	93.54	6.46	<10

Satisfies MORTH Specifications as per Table 400-2, Grading I

ort shall not be reproduced, except in full, without the written approval of the laboratory.
lts indicated above are based on the tests carried out on the samples received in the laboratory.
ery regarding the report must be reported within 30 days from the date of testing.

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b No.: CQCE/BBMP/KTR/W.No.15/2017-18 Date : 02.03.2018

GRADATION FOR WMM
MORTH TABLE-400-11

lient : **Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
gency : **Sri. K.T Ramesh,** Contractor, Bangalore.
ame of Work : Improvements and Re-Asphalting of Road from 1st, 2nd, 3rd & 5th Cross Road Kempegowda Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.

ate of Testing : 02.03.2018
laterial Type : Wet Mix Macadam

Oven Dry Wt (gm): **10000**

s Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	235	235	2.4	97.7	95-100
22.4	2614	2849	28.5	71.5	60-80
11.2	2681	5530	55.3	44.7	40-60
4.75	1635	7165	71.7	28.4	25-40
2.36	1254	8419	84.2	15.8	15-30
0.600	663	9082	90.8	9.2	8-22
0.075	541	9623	96.2	3.8	0-8

Note:
1. The report shall not be reproduced, except in full, without the written approval of the laboratory.
2. The results indicated above are based on the tests carried out on the samples received in the laboratory.
3. Any Query regarding the report must be reported within 15 days from the date of testing.

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No.: CQCE/BBMP/KTR/W.No.15/2017-18 **Date:** 02.03.2018

Aggregate Impact Value

IS: 2386 Part IV

nt	**Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
ncy	**Sri. K.T Ramesh,** Contractor, Bangalore.
ne of the Work	Improvements and Re-Asphalting of Road from 1st, 2nd, 3rd & 5th Cross Road Kempegowda Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.
e of Mix	Wet Mix Macadam
e of Testing	02.03.2018

il o.	Details	Trial No. 1	Trial No. 2	Trial No. 3	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	380	384	382	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	94	92	93	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	286	292	289	
4	Aggregate Impact value = percent fines 100* (W_2/W_1)%	24.74	23.96	24.35	**24.35**

mments:

Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

ote:

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ob No.: CQCE/BBMP/KTR/W.No.15/2017-18 Date: 06.03.2018

TEST REPORT

Client	:	**Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
Agency	:	**Sri. K.T Ramesh,** Contractor, Bangalore.
Name of the work	:	Improvements and Re-Asphalting of Road from 1st, 2nd, 3rd & 5th Cro Road Kempegowda Nagara in Dasarahalli Ward No.15, BBMP, Bangalo
Source of location	:	Hot mix Plant, Bangalore
Date of testing	:	06.03.2018

The results of the tests conducted on the bitumen sample using for Dense Graded Bituminous Macadam

Sl. No	Description	Test Result	Requirement as per IS:73:2013
1	Penetration at 25 ^{0}C, 1/10 mm	88	80 to 100
2	Softening point, ^{0}C	52	Min. 40
3	Ductility at 27^{0}C, cm	100 >	Min. 50
4	Flash Point, ^{0}C	326	Min. 220

Note:

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- Any Query regarding the report must be reported within 15 days from the date of testing.

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No.: CQCE/BBMP/KTR/W.No.15/2017-18 06.03.2018

Aggregate Gradation Test
IS : 2386 Part I

ent	**Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
ency	**Sri. K.T Ramesh,** Contractor, Bangalore.
me of the work	Improvements and Re-Asphalting of Road from 1st, 2nd, 3rd & 5th Cross Road Kempegowda Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.
mple ID	Hotmix Plant, Bangalore.
pe of Mix	Dense Graded Bituminous Macadam
te of Testing	06.03.2018

5000 gm

IEVE IZE, mm	Weight Retained, gm	% Retained	Cummulative % Retained	% Passing	Grade-II As per MORTH	Remarks
26.5	0	0	0	100	100	Gradation satisfies Grade-II MORTH specification
19	376	7.52	7.52	92.48	90-100	
13.2	1762	35.24	42.76	57.24	56-88	
4.75	1367	27.34	70.10	29.90	16-36	
2.36	752	15.04	85.14	14.86	4-19	
0.3	325	6.50	91.64	8.36	2-10	
0.075	96	1.92	93.56	6.44	0-8	

otal Weight of Sample: **5000** gm

IEVE SIZE, mm	Weight Retained, gm	% Retained	Cummulative % Retained	% Passing	Grade-II As per MORTH	Remarks
26.5	0	0	0	100	100	Gradation satisfies Grade-II MORTH specification
19	312	6.24	6.24	93.76	90-100	
13.2	1765	35.30	41.54	58.46	56-88	
4.75	1284	25.68	67.22	32.78	16-36	
2.36	762	15.24	82.46	17.54	4-19	
0.3	527	10.54	93.00	7.00	2-10	
0.075	211	4.22	97.22	2.78	0-8	

Note:

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No.: CQCE/BBMP/KTR/W.No.15/2017-18 06.03.2018

Aggregate Impact Value

IS: 2386 Part IV

ent	**Executive Engineer,** Dasarahalli Division, BBMP, Bangalore.
ency	**Sri. K.T Ramesh,** Contractor, Bangalore.
me of the Work	Improvements and Re-Asphalting of Road from 1st, 2nd, 3rd & 5th Cross Road Kempegowda Nagara in Dasarahalli Ward No.15, BBMP, Bangalore.
rce / Location	Hotmix Plant, Bangalore
pe of Mix	Dense Graded Bituminous Macadam
te of Testing	06.03.2018

Sl No.	Details	Trial No. 1	Trial No. 2	Trial No. 3	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	378	377	381	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	92	94	93	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	286	283	288	
4	Aggregate Impact value = percent fines	24.34	24.93	24.41	
	100* (W_2/W_1)%				24.56

mments:

- Maximum allowable Aggregate Impact value for Bituminous Macadam is 30%

ote:

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